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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/945,408	08/30/2001	Akito Kohno	393032027800	3181

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MORRISON & FOERSTER, LLP
555 WEST FIFTH STREET
SUITE 3500
LOS ANGELES, CA 90013-1024

EXAMINER

FAULK, DEVONA E

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/945,408

Applicant(s)

KOHNO ET AL.

Examiner

Devona E. Faulk

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 12,13,14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 12-14 set forth non-descriptive material but fails to set forth physical structures or materials comprising hardware of a combination of hardware and software within the computer to produce a “useful, concrete and tangible” result. The language does not clearly define structural elements and are not tangibly embodied on a computer readable medium. Claims 12-14 are interpreted as software, abstract ideas or mental construct and not tangibly embodied on a computer readable medium.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claims 3,4,7 and 10** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 3 and 10 recite a second control device that causes said second storage device to store timing data specifying timing of reading out the second audio data when said reproducing device reproduces the

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second audio data". The specification teaches of a RAM 15 that can temporarily store performance data (page 13, lines 25-27) and a pad RAM 16 that temporarily stores information indicating operating timing in which user operates the pads to reproduce the assigned audio data as a musical composition progresses. The specification does not disclose a storage device to store timing data specifying timing of reading out the second audio data as claimed.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1,3,4,6,7,9 and 10** are rejected under 35 U.S.C. 102(b) as being anticipated by Yamamoto (US 5,942,708).

Claims 1,3,9 and 10 share common elements.

Regarding **claims 1,3, 9 and 10**, Yamamoto discloses a mixing apparatus (method is obvious in functionality of apparatus, Figure 1) comprising

an input device that inputs a plurality of first audio data (switch panel 1, Figure 1)

a mixing device that mixes the input plurality of first audio data (tone generator (tone generator 10; column 6, lines 39-40) ;

a first storage device that stores a plurality of second audio data (RAM 5, Figure 1);

a plurality of operating members each being disposed to be depressed and having a sensor for detecting the depression (pads 12 and panel indicator 2 Figure 1 ; column 4, lines 37-42);

an assigning device that assigns at least one of the plurality of second audio data stored in said first storage device, respectively, to at least one of said plurality of operating members (column 5, lines 33-43);

a second storage device (RAM 16; column 6, lines 18-23);

a first control device that causes said second storage device to temporarily store the assigned second audio data (CPU 14; column 6, lines 23-25);

a reproducing device that reads out and reproduces the second audio data from said second storage device when the at least one of said plurality of operating members to which the second audio data is assigned is detected as being depressed (RAM 16; column 7, lines 20-60); and

a second control device that causes said second storage device to store timing data specifying timing of reading out the second audio data when said reproducing device reproduces the second audio data (CPU 14; column 6, lines 23-25).

All elements of **claim 4** are comprehended by the rejection of claim 3 (RAM 16 stores default filter parameters, filter parameters and timing data, column 6, lines 20-24 and 41-46; It is inherent that the different data would be stored in separate areas. The examiner has interpreted an area as an address).

All elements of **claims 6 and 7** are comprehended by the rejection of claims 1 and 3 respectively.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto (US 5,942,708) in view of Saito et al. (US 6,198,035).

Regarding **claim 2**, Yamamoto discloses operating members disposed adjacent to one another and teaches that the data is outputted to a sound system but does not expressly teach, as Saito discloses, assigning stereo audio data of two channels to the two adjacent operating members among said plurality of operating members (column 3, lines 22-30; column 1, lines 10-29). Furthermore, Yamamoto teaches that data can be assigned according to the user's wishes. It would have been obvious to one of ordinary skill in the art to assign stereo audio data of two channels to adjacent operating members to ensure a channel is assigned for each the left and right to enable stereo sound.

Allowable Subject Matter

8. **Claims 5,8 and 11** are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 5 and 11 prior art Powers, US 6, 839,441, discloses a sound mixing console with master control section –including an input device that inputs a plurality of first audio data, an assigning device, a storage device. Prior art Yamamoto, US 5,942,708, discloses a tone generator with diversification of waveform using variable addressing including an input device, a hard disk drive, a plurality of operating members an assigning device, a memory, a control device. Prior art Saito, US 6,198,035, discloses a musical sound signal generation apparatus. Prior art East, US 6,061,458, discloses an audio mixing console. Prior art Ito, US 5,300,723, discloses an electronic music device including a switch panel and a switch detection circuit. Prior art Suzuki et al., US 5,831,193, discloses a method and device for forming a tone waveform by combined use of different waveform sample forming resolutions including a hard disk drive, a RAM having a working memory. Prior art Haruyama, US 5,902,948, discloses a performance-instructing device including a RAM memory that temporarily stores automatic performance data, and a switch panel and a switch-detecting panel. Prior art Kondo et al., US 5,668,337 discloses an automatic performance device including a display including a channel change table used to assign data to certain channel, a switch operation detection circuit. Prior art Yamamoto et al, US 6,573,444, discloses a music data compression apparatus and method including a hard disk drive having a primary memory that temporarily stores musical pieces recorded on a music CD and when a user presses a digital dubbing key the data stored in the primary memory, compressed and the compressed data is stored in a secondary memory. The prior art or combination thereof fails to make obvious “an assigning device that assigns at least

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one of the plurality of second audio data stored in said built-in hard disk device and at least one of the plurality of third audio data stored in said external storage device respectively to at least one of said plurality of operating members" and "said control device" that is responsive to the assigning device as claimed. Therefore the prior art or combination thereof fails to disclose or make obvious a mixing device and method as claimed.


Claim 8 is allowed due to dependency on claim 5.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devona E. Faulk whose telephone number is 703-305-4359. The examiner can normally be reached on 8 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached at 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


VIVIAN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

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